

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed April 18, 2003. Applicants appreciate the Examiner's consideration of the Application. Claims 16, 17, 18, 20, 25, 29, 34, 37, and 43 have been amended to clarify, more particularly point out, and more distinctly claim inventive concepts previously present in these claims. Applicants respectfully submit that no new matter has been added by the amendments to the claims. In order to advance prosecution of this Application, Applicants have responded to each notation by the Examiner. Applicants respectfully request reconsideration and favorable action in this case.

Section 112 Rejection

Claims 16, 17, and 20 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended Claims 16, 17, and 20 to correct the informalities noted by the Examiner and respectfully request that this rejection be withdrawn.

Section 102 Rejection

The Office Action rejects Claims 1, 3, 6, 11-15, 17, 18, 20, 22, 24, 29, 30, 32, 34-37, 39, 41, 43, 44, and 46, under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,320,877 B1 issued to Humphrey et al. (*Humphrey*). Applicants respectfully traverse this rejection and all findings therein.

Humphrey fails to teach "a service channel in at least one frame individually transporting traffic for a DS-0 connection; and a set of service channels in the frame together transporting an asynchronous transfer mode (ATM) cell," as recited in Applicants' Claim 1.

First, the Office Action argues that *Humphrey* discloses Applicants' service channels by referring to the bus slots shown in *Humphrey*'s Figure 12 and further described by *Humphrey*'s Figure 15 illustrating an ingress bus. Applicant's respectfully disagree. *Humphrey*'s Figure 12 shows a frame having bus slots of 64 bytes each. *Humphrey*'s Figure 15 shows an asynchronous transfer mode subframe format and according to *Humphrey*,

"Synchronous transfer mode subframe format 290 has a 64 byte data structure, and includes a 24-bit synchronous transfer mode header." (*Humphrey*, column 16, lines 23-26). *Humphrey* also states that, "Synchronous transfer mode subframe format 290 also includes forty eight 10-bit channels of DS-0 data. In addition to eight bits of DS-0 data, each DS-0 channel includes a path verification bit and a parity bit." (*Humphrey*, column 16, lines 35-38). That is, each of *Humphrey*'s bus slots may carry forty eight (48) channels of DS-0 data, and therefore each service channel does not "individually" transport DS-0 data. Therefore, *Humphrey* does not teach every limitation recited by Applicants' independent Claims 1.

Additionally, the Office Action alleges that *Humphrey* discloses a set of service channels transporting an ATM cell by pointing to *Humphrey*'s interface between the application circuitry and data buses at column 14, lines 60-68. (Office Action, page 12, paragraph 3). Applicants respectfully disagree. *Humphrey* states in that passage:

If the incoming data is determined to be asynchronous at step 214, the method proceeds to step 230, where the incoming asynchronous transfer mode data is first validated to verify that there is a valid datagram addressed to the local application card. The incoming asynchronous transfer mode data is then transmitted to an iMPAX packet layer first-in/first-out buffer. At step 232, the asynchronous transfer mode data is transmitted to the application circuitry.

(*Humphrey*, column 14, lines 60-68). *Humphrey* further describes an iMPAX packet layer subframe format by stating that, "iMPAX packet layer subframe format 300 includes a 53-byte iMPAX packet layer payload." (*Humphrey*, column 16, lines 64-65). As already explained, *Humphrey*'s bus slots are shown in Figures 12 and 13 as being 64 bytes long. That is, *Humphrey*'s iMPAX packet payload carry one ATM cell of 53 bytes which may be transported in one *Humphrey*'s bus slots. Consequently, *Humphrey* does not teach "a set of service channels in the frame together transporting an asynchronous transfer mode (ATM) cell," as recited in Applicants' Claim 1. Therefore, Applicants respectfully request that the Examiner withdraws this rejection to independent Claim 1. Independent Claims 14, 18, 25, 29, and 37 are allowable for analogous reasons.

Regarding Applicants' Claim 34, *Humphrey* fails to teach "generating a control message at the first node element, the control message being free of addressing information; inserting the control message into the internode communication channel of the frame;

transmitting the frame on a synchronous bus to a switch element; and synchronously switching the control message in the internode communication channel to a destination element based on the position of the control message in the internode communication channel", as recited in Applicants' independent Claim 34, as amended.

The Office Action fails to support his rejection of Claim 34 concerning "generating a control message at the first node element, the control message being free of addressing information;" and "transmitting the frame on a synchronous bus to a switch element". "When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable." 37 C.F.R. § 1.104(c)(2). Therefore, Applicants respectfully request that this rejection be withdrawn, or to the extent the rejection is continued by the Examiner, that the Examiner provide support for such a rejection by reference to the art or an affidavit as required by 37 C.F.R. 1.104(d)(2).

Furthermore, *Humphrey* does not teach "inserting the control message into the internode communication channel of the frame" as recited in Applicants' independent Claim 34 as amended. The Office Action argues that a control message is disclosed in *Humphrey* as routing and administrative data inserted into the frame header. (Office Action, page 7, paragraph 2). Applicants respectfully disagree. *Humphrey* does not teach, either expressly or impliedly, a control message as recited by Applicants' independent Claim 34. *Humphrey*'s routing and administrative data is described as being received and transmitted by STSM circuits 42 and optical interface circuit 40 as shown in *Humphrey*'s Figure 1. (*Humphrey*, column 5, lines 9-22). *Humphrey*'s Figure 1, however, shows that the STSM circuits 42 and the optical interface circuit (OTM) 40 do not receive or transmit traffic via the ingress bus 60 that according to *Humphrey* carries the frames shown in *Humphrey*'s Figure 12. (*Humphrey*, Figure 12; column 15, lines 16-19).

Even if we assumed that *Humphrey* discloses a "control message" inserted in the frame header, as alleged by the Examiner, (Office Action, page 7, paragraph 2), *Humphrey* does not teach "the control message being free of addressing information", recited in Applicants' independent Claim 34, as amended. Specifically, *Humphrey* states that,

The frame header provides a 32 byte capacity and carries synchronization data, command data, and other suitable data. The 32

byte frame header is organized as sixteen 16-bit words. The first fifteen bits of word 1 contain a framing pattern field used by other telecommunications components to determine the system building block frame position. The device address field in word 2 is used to address devices to which a command or other suitable data is to be sent.

(*Humphrey*, column 15, lines 63-67; column 16, lines 1-4). That is, even if *Humphrey's* control message was inserted in the frame header, an address field would be used to send the message to its destination, while Applicants' control message is "free of addressing information". Therefore, *Humphrey* fails to teach every limitation recited in Applicants' independent Claim 34. Applicants respectfully request that the Examiner withdraws this rejection.

Moreover, *Humphrey* fails to disclose, teach, or suggest "synchronously switching the control message in the internode communication channel to a destination element based on the position of the control message in the internode communication channel", recited in Applicants' independent Claim 34, as amended. The Office Action points to *Humphrey's* matrix interface circuit 46 as described by *Humphrey* at column 5, lines 55-67; column 6, lines 1-7. (Office Action, page 7, paragraph 2). Applicants respectfully disagree. Neither *Humphrey's* matrix interface circuit 46, nor any other element in *Humphrey* teaches, either expressly or impliedly, to synchronously switch the control message in the internode communication channel to a destination element based on the position of the control message in the internode communication channel, as recited in Applicants' Claim 34. Therefore, Applicants respectfully submit that *Humphrey* fails to teach the combination of limitations recited by Applicants' independent Claim 34 and request that the Examiner withdraw this rejection. Independent Claim 43 is allowable for analogous reasons.

Applicants' dependent Claims 2-13, 13-17, 19- 24, 26-28, 30-33, 35-36, 38-42, and 44-47 are allowable based on their dependence on the independent claims and further because they recite numerous additional patentable distinctions over the prior art.

Applicants respectfully request reconsideration and allowance of independent Claims 1, 14, 18, 25, 29, 34, 37, and 43, and all claims that depend on these claims.

Section 103(a) Rejection

Claims 2, 7, 19, and 38 are rejected as being unpatentable over *Humphrey* in view of U.S. Patent 5,594,576 issued to Sutherland et al. (*Sutherland*); Claims 4, 5, 21, 25, 26, 31, 40, and 45 are rejected as being unpatentable over *Humphrey* in view of U.S. Patent No. 5,398,234 issued to O'Connell et al. (*O'Connell*); Claims 8, 9, 16, 23, 33, 42, and 47 are rejected as being unpatentable over *Humphrey* in view of U.S. Patent No. 6,009,106 issued to Rustad et al. (*Rustad*); Claim 10 is rejected as being unpatentable over *Humphrey* in view of *Rustad* and *Sutherland*; and Claims 27 and 28 are rejected as being unpatentable over *Humphrey* in view of *O'Connell* and *Rustad*. Applicants respectfully traverse these rejections and all findings therein. For at least the reasons already provided, *Humphrey* fails to teach the recited elements of the independent claims. The Office Action cites no teachings in *Sutherland*, *O'Connell*, or *Rustad* of these missing elements. Accordingly, these claims are also allowable.

CONCLUSION

Applicants have made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicants respectfully request full allowance of all the pending claims.

If the Examiner believes a telephone conference would advance prosecution of this case in any way, the Examiner is invited to contact Terry Stalford, the Attorney for Applicants, at the Examiner's convenience at (214) 953-6477.

Although Applicants believe no fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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